What is claimed is:

1. A transmission apparatus using a plastic fiber, comprising:

i) a plastic fiber, and

ii) a photodetector for detecting light, which has been propagated through the plastic fiber,

wherein the photodetector comprises a plurality of semiconductor light receiving devices, whose light receiving sensitivity wavelength regions are identical with one another, each of the semiconductor light receiving devices having a light receiving area smaller than a cross-sectional area of a core of the plastic fiber.

2. An apparatus as defined in Claim 1 wherein a total sum of the light receiving areas of the plurality of the semiconductor light receiving devices is approximately equal to a cross-sectional area of the plastic fiber, and

the plurality of the semiconductor light receiving devices are located such that the plurality of the semiconductor light receiving devices directly receive the light, which is radiated out from the plastic fiber, without an optical system intervening between the plastic fiber and the semiconductor light receiving devices.

3. An apparatus as defined in Claim 1 wherein the plurality of the semiconductor light receiving devices have a response band of at least 1GHz.

4. An apparatus as defined in Claim 2 wherein the plurality of the semiconductor light receiving devices have a response band of at least 1GHz.

5. An apparatus as defined in Claim 1 wherein the plurality of the semiconductor light receiving devices are formed on a single same base plate.

6. An apparatus as defined in Claim 2 wherein the plurality of the semiconductor light receiving devices are formed on a single same base plate.

7. An apparatus as defined in Claim 1 wherein each of the plurality of the semiconductor light receiving devices is connected to one of a plurality of independent amplifiers.

8. An apparatus as defined in Claim 2 wherein each of the plurality of the semiconductor light receiving devices is connected to one of a plurality of independent amplifiers.

9. An apparatus as defined in Claim 1 wherein the plurality of the semiconductor light receiving devices are formed on a single common base plate and are electrically isolated from one another.

10. An apparatus as defined in Claim 1 wherein the base plate has a rectangular shape and is divided into four subregions, which are arrayed in two columns and in two rows, and

each of the semiconductor light receiving devices is formed on one of the four subregions of the base plate.

11. An apparatus as defined in Claim 10 wherein each of the semiconductor light receiving devices is formed on one of the four subregions of the base plate, such that a light receiving section of the semiconductor light receiving device is located at a position shifted from a center point of the subregion toward a center point of the entire base plate.

12. An apparatus as defined in Claim 1 wherein the plurality of the semiconductor light receiving devices are formed on a plurality of independent base plates.

13. An apparatus as defined in Claim 12 wherein each of the base plates has a rectangular shape, and the base plates are constituted of four base plates, which are arrayed in two columns and in two rows.

14. An apparatus as defined in Claim 13 wherein each of the semiconductor light receiving devices is formed on one of the four base plates, such that a light receiving section of the semiconductor light receiving device is located at a position shifted from a center point of the base plate toward a center point of the array of the four base plates.

15. An apparatus as defined in Claim 1 wherein the plastic fiber is a graded index type of fiber.

16. An apparatus as defined in Claim 2 wherein the plastic fiber is a graded index type of fiber.